

Notes for Marking Level F Worksheets

Marking is the process of clearly indicating correct pages, and incorrect or incomplete answers.

Place a **tick** (✓) on the question number of any incorrect, or unattempted question.

Place a **triangle** (△) on the question number for any question that has been attempted, but is incomplete.

<p>F 1–180 (when reduction is the learning focus)</p> <p>Place a tick (✓) if students did not reduce fractions to the lowest possible term.</p>	<p>F 6a</p> <p>(✓) $\frac{12}{18} = \frac{6}{9}$</p>
<p>F 11–180</p> <p>When the learning focus is not reduction, place a triangle (△) if students did not reduce fractions to the lowest possible term.</p>	<p>F 34b</p> <p>(△) $\frac{1}{2} + \frac{1}{3} + \frac{1}{10}$</p> $= \frac{15}{30} + \frac{10}{30} + \frac{3}{30}$ $= \frac{28}{30}$
<p>F 11–20, 31–180</p> <p>Students should use the Least Common Multiple (LCM) for addition and subtraction. Place a triangle (△) if students did not use the LCM.</p>	<p>F 36b</p> <p>(△) $\frac{1}{3} + \frac{1}{4} + \frac{1}{8}$</p> $= \frac{16}{48} + \frac{12}{48} + \frac{6}{48}$ $= \frac{34}{48}$ $= \frac{17}{24}$
<p>F 11–30, 61–180</p> <p>Fractions should be reduced in the intermediate step for multiplication and division. Place a triangle (△) if students did not reduce the fractions in the intermediate step.</p>	<p>F 73b</p> <p>(△) $\frac{1}{8} \times 6 + 2$</p> $= \frac{6}{8} + 2$ $= 2\frac{6}{8}$ $= 2\frac{3}{4}$

F1-5 (3-5 min)

1	2	3
(1) 408	(1) 4 R 2	(1) 22 R 3
(2) 782	(2) 4 R 8	(2) 25 R 10
(3) 1156	(3) 4 R 21	
(4) 1530	(4) 5 R 15	
(5) 4794	(5) 2 R 20	(3) 60
(6) 5828	(6) 3 R 2	(4) 54 R 35
(7) 6862	(7) 4 R 17	
(8) 7896	(8) 5 R 40	
1	2	3
(9) 2183	(9) 3 R 20	(5) 51 R 11
(10) 2832	(10) 4 R 63	(6) 64 R 20
(11) 3481	(11) 5 R 55	
(12) 3540	(12) 9 R 3	
(13) 19375	(13) 4	(7) 22 R 10
(14) 26250	(14) 7 R 5	(8) 21
(15) 33125	(15) 3 R 38	
(16) 40000	(16) 8 R 12	

4			5		
1.					
(1)	$2\frac{\boxed{1}}{4}$	(7)	3	(1)	$7\frac{1}{2}$
(2)	$3\frac{2}{5}$	(8)	$3\frac{1}{12}$	(2)	$6\frac{2}{3}$
(3)	$4\frac{1}{6}$	(9)	$2\frac{13}{15}$	(3)	$8\frac{1}{2}$
(4)	$\boxed{4}$	(10)	4	(4)	$9\frac{1}{2}$
(5)	$5\frac{3}{8}$	(11)	$2\frac{2}{19}$	(5)	$10\frac{1}{3}$
(6)	$6\frac{5}{9}$	(12)	$8\frac{17}{30}$	(6)	$18\frac{2}{5}$
4			5		
2.		3.			
(1)	$1\frac{3}{4}$	(1)	$\frac{7}{5}$	(7)	$15\frac{1}{2}$
(2)	$2\frac{1}{6}$	(2)	$\frac{18}{7}$	(8)	$12\frac{1}{3}$
(3)	$3\frac{4}{7}$	(3)	$\frac{27}{8}$	(9)	$11\frac{1}{2}$
(4)	$3\frac{2}{9}$	(4)	$\frac{47}{10}$	(10)	$8\frac{1}{3}$
(5)	$5\frac{1}{10}$	(5)	$\frac{41}{12}$	(11)	$7\frac{7}{8}$
(6)	$5\frac{5}{21}$	(6)	$\frac{107}{20}$	(12)	$15\frac{1}{4}$

F6-10 (3-5 min)

6		7		8	
(1) $\frac{2}{5}$	(8) $\frac{5}{7}$	(1) $\frac{1}{2}$	(8) $\frac{1}{10}$	(1) $\frac{1}{2}$	(8) $\frac{19}{20}$
(2) $\frac{1}{2}$	(9) $\frac{2}{3}$	(2) $\frac{1}{3}$	(9) $\frac{1}{3}$	(2) $\frac{3}{5}$	(9) $\frac{5}{7}$
(3) $\frac{2}{3}$	(10) $\frac{2}{3}$	(3) $\frac{2}{3}$	(10) $\frac{3}{4}$	(3) $\frac{4}{5}$	(10) $\frac{1}{4}$
(4) $\frac{1}{2}$	(11) $\frac{14}{15}$	(4) $\frac{1}{4}$	(11) $\frac{3}{4}$	(4) $\frac{7}{9}$	(11) $\frac{3}{4}$
(5) $\frac{3}{4}$	(12) $\frac{1}{4}$	(5) $\frac{3}{5}$	(12) $\frac{1}{2}$	(5) $\frac{3}{5}$	(12) $\frac{3}{4}$
(6) $\frac{2}{3}$	(13) $\frac{3}{5}$	(6) $\frac{3}{7}$	(13) $\frac{1}{3}$	(6) $\frac{1}{3}$	(13) $\frac{1}{7}$
(7) $\frac{3}{4}$	(14) $\frac{2}{5}$	(7) $\frac{1}{6}$	(14) $\frac{1}{5}$	(7) $\frac{2}{3}$	(14) $\frac{5}{7}$
6		7		8	
(15) $\frac{1}{2}$	(22) $\frac{1}{2}$	(15) $\frac{1}{2}$	(22) $\frac{2}{5}$	(15) $\frac{9}{19}$	(22) $\frac{5}{7}$
(16) $\frac{1}{3}$	(23) $\frac{3}{5}$	(16) $\frac{1}{3}$	(23) $\frac{1}{2}$	(16) $\frac{2}{3}$	(23) $\frac{11}{20}$
(17) $\frac{2}{3}$	(24) $\frac{3}{5}$	(17) $\frac{2}{3}$	(24) $\frac{3}{4}$	(17) $\frac{1}{3}$	(24) $\frac{1}{5}$
(18) $\frac{1}{4}$	(25) $\frac{5}{9}$	(18) $\frac{1}{4}$	(25) $\frac{1}{5}$	(18) $\frac{2}{3}$	(25) $\frac{4}{5}$
(19) $\frac{1}{3}$	(26) $\frac{1}{5}$	(19) $\frac{2}{5}$	(26) $\frac{3}{4}$	(19) $\frac{7}{8}$	(26) $\frac{4}{7}$
(20) $\frac{5}{6}$	(27) $\frac{3}{5}$	(20) $\frac{1}{4}$	(27) $\frac{3}{4}$	(20) $\frac{1}{4}$	(27) $\frac{1}{5}$
(21) $\frac{3}{4}$	(28) $\frac{1}{3}$	(21) $\frac{6}{7}$	(28) $\frac{2}{5}$	(21) $\frac{3}{4}$	(28) $\frac{4}{5}$

9				10			
(1)	$\frac{4}{15}$	(8)	$\frac{1}{2}$	(1)	$\frac{2}{3}$	(8)	$\frac{3}{8}$
(2)	$\frac{5}{16}$	(9)	$\frac{1}{3}$	(2)	$\frac{2}{5}$	(9)	$\frac{4}{5}$
(3)	$\frac{2}{3}$	(10)	$\frac{3}{4}$	(3)	$\frac{4}{7}$	(10)	$\frac{3}{4}$
(4)	$\frac{2}{3}$	(11)	$\frac{2}{5}$	(4)	$\frac{1}{2}$	(11)	$\frac{2}{3}$
(5)	$\frac{4}{11}$	(12)	$\frac{3}{4}$	(5)	$\frac{4}{5}$	(12)	$\frac{1}{2}$
(6)	$\frac{1}{2}$	(13)	$\frac{5}{6}$	(6)	$\frac{1}{2}$	(13)	$\frac{1}{3}$
(7)	$\frac{2}{3}$	(14)	$\frac{3}{5}$	(7)	$\frac{2}{7}$	(14)	$\frac{1}{5}$
9				10			
(15)	$\frac{2}{3}$	(22)	$\frac{1}{2}$	(15)	$\frac{1}{3}$	(22)	$\frac{3}{5}$
(16)	$\frac{3}{4}$	(23)	$\frac{3}{5}$	(16)	$\frac{3}{4}$	(23)	$\frac{1}{3}$
(17)	$\frac{1}{2}$	(24)	$\frac{2}{3}$	(17)	$\frac{2}{3}$	(24)	$\frac{2}{11}$
(18)	$\frac{1}{4}$	(25)	$\frac{1}{3}$	(18)	$\frac{1}{5}$	(25)	$\frac{2}{5}$
(19)	$\frac{1}{3}$	(26)	$\frac{2}{3}$	(19)	$\frac{2}{3}$	(26)	$\frac{3}{7}$
(20)	$\frac{12}{35}$	(27)	$\frac{2}{5}$	(20)	$\frac{1}{2}$	(27)	$\frac{1}{4}$
(21)	$\frac{1}{4}$	(28)	$\frac{1}{3}$	(21)	$\frac{2}{3}$	(28)	$\frac{1}{3}$

F11-20 (3-5 min)

11	12	13	14	15
(1) $1\frac{1}{7}$	(1) $1\frac{\boxed{1}}{5}$	(1) $\frac{1}{12}$	1. (1) $2\frac{7}{11}$	(1) $\frac{\boxed{1}}{12}$
(2) $6\frac{2}{9}$	(2) $1\frac{1}{7}$	(2) $\frac{1}{9}$	(2) $1\frac{7}{13}$	(2) $\frac{1}{20}$
(3) $1\frac{5}{8}$	(3) $1\frac{2}{7}$	(3) $\frac{11}{24}$	(3) $\frac{31}{60}$	(3) $\frac{1}{12}$
(4) $1\frac{2}{15}$	(4) $2\frac{2}{7}$	(4) $\frac{7}{24}$	(4) $2\frac{8}{15}$	(4) $\frac{2}{15}$
(5) $\frac{43}{56}$	(5) $3\frac{1}{9}$	(5) $\frac{1}{4}$	(5) $1\frac{13}{24}$	(5) $\frac{4}{21}$
(6) $1\frac{7}{24}$	(6) $4\frac{3}{7}$	(6) $\frac{1}{2}$	(6) $5\frac{29}{36}$	(6) $\frac{1}{4}$
(7) $\frac{11}{30}$	(7) $6\frac{4}{9}$	(7) $1\frac{1}{2}$	(7) $6\frac{11}{60}$	(7) $\frac{1}{3}$
11	12	13	14	15
(8) $1\frac{11}{28}$	(8) $\frac{\boxed{7}}{12}$	(8) $\frac{5}{7}$	2. (1) $\frac{\boxed{4}}{5}$	(8) $\frac{\boxed{4}}{7}$
(9) $\frac{1}{6}$	(9) $\frac{9}{20}$	(9) $\frac{7}{9}$	(2) $\frac{3}{5}$	(9) $\frac{7}{8}$
(10) $2\frac{1}{3}$	(10) $\frac{5}{12}$	(10) $1\frac{8}{15}$	(3) $\frac{6}{7}$	(10) $1\frac{\boxed{4}}{5}$
(11) $4\frac{5}{12}$	(11) $\frac{8}{15}$	(11) $1\frac{7}{48}$	(4) $\frac{4}{7}$	(11) $2\frac{5}{7}$
(12) $10\frac{1}{16}$	(12) $\frac{10}{21}$	(12) $3\frac{3}{5}$	(5) $\frac{3}{7}$	(12) $3\frac{2}{9}$
(13) $7\frac{33}{40}$	(13) $\frac{3}{4}$	(13) $4\frac{3}{4}$	(6) $2\frac{\boxed{5}}{7}$	(13) $2\frac{\boxed{5}}{7}$
(14) $6\frac{19}{24}$	(14) $\frac{1}{2}$	(14) $2\frac{13}{15}$	(7) $\frac{4}{7}$	(14) $3\frac{1}{8}$

16	17	18	19	20
(1) $\frac{7}{12}$	1. (1) 2	(1) $2\frac{1}{2}$	(1) $\frac{19}{80}$	(1) $1\frac{1}{48}$
(2) $\frac{2}{3}$	(2) $1\frac{2}{5}$	(2) $1\frac{29}{80}$	(2) $5\frac{21}{40}$	(2) $6\frac{9}{20}$
(3) $1\frac{1}{2}$	(3) $\frac{2}{5}$	(3) $3\frac{4}{7}$	(3) $8\frac{1}{4}$	(3) $1\frac{11}{28}$
(4) $\frac{11}{15}$	(4) $2\frac{1}{3}$	(4) $6\frac{7}{10}$	(4) $2\frac{8}{45}$	(4) $\frac{23}{54}$
(5) 2	(5) $1\frac{1}{14}$	(5) $\frac{3}{7}$	(5) $\frac{29}{36}$	(5) $8\frac{6}{11}$
(6) 1	(6) 18	(6) $2\frac{3}{5}$	(6) $1\frac{7}{12}$	(6) $10\frac{1}{3}$
(7) 1	(7) $2\frac{1}{5}$	(7) $2\frac{4}{9}$	(7) $1\frac{2}{9}$	(7) $\frac{3}{4}$
16	17	18	19	20
(8) 2	2. (1) $\frac{10}{21}$	(8) $\frac{1}{72}$	(8) 12	(8) $16\frac{7}{54}$
(9) $1\frac{1}{8}$	(2) $\frac{7}{11}$	(9) 2	(9) $4\frac{1}{2}$	(9) $1\frac{71}{75}$
(10) 5	(3) $\frac{9}{25}$	(10) 10	(10) $1\frac{3}{8}$	(10) $3\frac{2}{11}$
(11) $10\frac{1}{2}$	(4) $1\frac{1}{5}$	(11) 28	(11) $\frac{1}{3}$	(11) $6\frac{3}{4}$
(12) $3\frac{1}{3}$	(5) $\frac{2}{3}$	(12) $1\frac{1}{2}$	(12) $\frac{15}{22}$	(12) $1\frac{1}{3}$
(13) 15	(6) $\frac{9}{14}$	(13) $\frac{3}{4}$	(13) $1\frac{7}{15}$	(13) $\frac{4}{5}$
(14) $9\frac{1}{3}$	(7) $2\frac{4}{5}$	(14) $3\frac{2}{5}$	(14) $\frac{5}{8}$	(14) $\frac{7}{60}$

F21-30 (4-6 min)

21	22	23	24	25
(1) $\frac{1}{10}$	(1) $\frac{7}{15}$	(1) $\frac{2}{5}$	(1) 1	(1) $\frac{1}{14}$
(2) $\frac{2}{15}$	(2) $\frac{2}{9}$	(2) $2\frac{1}{2}$	(2) $1\frac{2}{3}$	(2) $\frac{1}{28}$
(3) $\frac{1}{24}$	(3) $\frac{2}{5}$	(3) 7	(3) 1	(3) $\frac{4}{9}$
(4) $\frac{1}{6}$	(4) $1\frac{1}{3}$	(4) 21	(4) 14	(4) $\frac{1}{3}$
(5) $\frac{1}{12}$	(5) $1\frac{2}{7}$	(5) 5	(5) $1\frac{1}{9}$	(5) $1\frac{1}{8}$
(6) $\frac{1}{12}$	(6) $1\frac{1}{2}$	(6) $5\frac{1}{2}$	(6) 2	(6) $\frac{2}{7}$
21	22	23	24	25
(6) $\frac{1}{45}$	(7) $\frac{1}{6}$	(7) 8	(7) $\frac{5}{14}$	(7) $\frac{1}{10}$
(7) $\frac{1}{40}$	(8) $1\frac{1}{5}$	(8) $1\frac{1}{6}$	(8) $\frac{5}{14}$	(8) $\frac{1}{10}$
(8) $\frac{1}{11}$	(9) $2\frac{2}{3}$	(9) $7\frac{1}{2}$	(9) 4	(9) $\frac{1}{10}$
(9) $\frac{1}{13}$	(10) 3	(10) 24	(10) 4	(10) $\frac{8}{17}$
(10) $\frac{1}{8}$	(11) $\frac{5}{6}$	(11) 14	(11) $4\frac{4}{5}$	(11) $1\frac{1}{12}$
	(12) 15	(12) $3\frac{1}{2}$	(12) $4\frac{4}{5}$	(12) 14

26	27	28	29	30
(1) $\frac{5}{6}$	(1) $1\frac{5}{7}$	(1) $1\frac{1}{4}$	(1) $2\frac{4}{5}$	(1) $\frac{1}{4}$
(2) 3	(2) $\frac{2}{21}$	(2) $3\frac{2}{5}$	(2) $\frac{1}{2}$	(2) $\frac{5}{21}$
(3) 3	(3) $\frac{1}{14}$	(3) $\frac{2}{3}$	(3) $2\frac{8}{21}$	(3) $\frac{3}{5}$
(4) $2\frac{2}{3}$	(4) 9	(4) 9	(4) 2	(4) $\frac{1}{4}$
(5) 3	(5) 1	(5) $1\frac{1}{2}$	(5) $1\frac{1}{3}$	(5) $\frac{1}{14}$
26	27	28	29	30
(6) $1\frac{2}{5}$	(6) $2\frac{1}{2}$	(6) $\frac{2}{3}$	(6) $2\frac{1}{3}$	(6) $3\frac{1}{3}$
(7) $\frac{7}{50}$	(7) $2\frac{1}{4}$	(7) $1\frac{1}{2}$	(7) 27	(7) $6\frac{1}{2}$
(8) $1\frac{2}{3}$	(8) $\frac{2}{21}$	(8) $5\frac{5}{9}$	(8) $\frac{1}{4}$	(8) $\frac{7}{9}$
(9) 1	(9) $6\frac{2}{3}$	(9) 36	(9) $\frac{1}{60}$	(9) 8
(10) $3\frac{2}{3}$	(10) 5	(10) $\frac{3}{16}$	(10) $\frac{5}{24}$	(10) $1\frac{11}{14}$
(11) $\frac{2}{11}$	(11) $1\frac{3}{7}$	(11) $\frac{11}{32}$	(11) $\frac{5}{24}$	(11) $1\frac{1}{2}$

F31-40 (3-5 min)

31	32	33	34	35
(1) $\frac{19}{24}$	1. (1) 12	(1) 42	1. (1) 24	1. (1) 60
(2) $1\frac{1}{24}$	(2) 24	(2) 30	(2) 30	(2) 60
(3) $1\frac{1}{12}$	(3) 28	(3) 8	(3) 12	(3) 45
(4) $1\frac{7}{12}$	(4) 24	(4) 36	(4) 20	(4) 15
(5) $1\frac{5}{12}$	(5) 40	(5) 42	(5) 12	(5) 18
		(6) 18	(6) 20	(6) 30
		(7) 12	(7) 90	(7) 63
		(8) 18	(8) 10	(8) 84
		(9) 40	(9) 24	(9) 12
		(10) 60	(10) 66	(10) 90
31	32	33	34	35
(6) $\frac{17}{18}$	2. (1) 36	(11) 6	2. (1) $\frac{23}{24}$	2. (1) $\frac{13}{15}$
(7) $1\frac{1}{18}$	18	(12) 24	(2) $\frac{14}{15}$	(2) $\frac{33}{40}$
(8) $1\frac{7}{18}$	(2) 36	(13) 70	(3) $\frac{11}{12}$	(3) $\frac{47}{60}$
	36	(14) 18		
(9) $\frac{19}{20}$	3. (1) 18	(15) 30	(4) $\frac{11}{12}$	(4) $\frac{19}{24}$
(10) $1\frac{3}{20}$	(2) 30	(16) 42	(5) $\frac{17}{20}$	(5) $\frac{7}{9}$
(11) $1\frac{17}{20}$	(3) 36		(6) $\frac{4}{5}$	(6) $\frac{23}{30}$
	(4) 56			
	(5) 20	(17) 60		

36	37	38	39	40
1. (1) 40 (2) 56 (3) 36 (4) 27 (5) 30 (6) 24 (7) 20 (8) 28 (9) 24 (10) 36	1. (1) 24 (2) 24 (3) 120 (4) 24 (5) 14 (6) 70 (7) 42 (8) 48 (9) 16 (10) 48	1. (1) 18 (2) 36 (3) 90 (4) 18 (5) 26 (6) 56 (7) 63 (8) 54 (9) 90 (10) 72	(1) $\frac{11}{24}$ (2) $\frac{7}{16}$ (3) $\frac{17}{40}$ <hr/> (4) $\frac{43}{90}$ (5) $\frac{7}{15}$ (6) $\frac{17}{48}$	(1) $\frac{17}{24}$ (2) $\frac{23}{45}$ (3) $\frac{17}{50}$ <hr/> (4) $\frac{7}{12}$ (5) $\frac{5}{14}$ (6) $\frac{41}{52}$
36	37	38	39	40
2. (1) $\frac{3}{4}$ (2) $\frac{17}{24}$ (3) $\frac{2}{3}$ <hr/> (4) $\frac{29}{45}$ (5) $\frac{19}{30}$ (6) $\frac{3}{5}$	2. (1) $\frac{5}{8}$ (2) $\frac{3}{5}$ (3) $\frac{23}{42}$ <hr/> (4) $\frac{13}{24}$ (5) $\frac{25}{48}$ (6) $\frac{1}{2}$	2. (1) $\frac{37}{60}$ (2) $\frac{23}{40}$ (3) $\frac{11}{20}$ <hr/> (4) $\frac{31}{60}$ (5) $\frac{11}{24}$ (6) $\frac{13}{28}$	(7) $\frac{23}{28}$ (8) $\frac{11}{16}$ (9) $\frac{2}{3}$ <hr/> (10) $\frac{1}{3}$ (11) $\frac{19}{63}$ (12) $\frac{31}{80}$	(7) $\frac{19}{40}$ (8) $\frac{13}{30}$ (9) $\frac{13}{36}$ <hr/> (10) $\frac{19}{56}$ (11) $\frac{5}{18}$ (12) $\frac{11}{45}$

F41–50 (4–6 min)

41	42	43	44	45
(1) $1\frac{1}{12}$	(1) $\frac{23}{30}$	(1) $1\frac{5}{12}$	(1) $1\frac{1}{18}$	(1) $1\frac{1}{4}$
(2) $\frac{23}{24}$	(2) $\frac{29}{40}$	(2) $1\frac{2}{3}$	(2) $1\frac{11}{36}$	(2) $1\frac{1}{3}$
(3) 1	(3) $\frac{25}{36}$	(3) $1\frac{5}{12}$	(3) $1\frac{4}{9}$	(3) $\frac{59}{60}$
(4) $\frac{14}{15}$	(4) $\frac{61}{90}$	(4) $1\frac{4}{15}$	(4) $1\frac{4}{45}$	(4) 1
(5) $\frac{7}{8}$	(5) $\frac{2}{3}$	(5) $1\frac{1}{3}$	(5) $1\frac{13}{36}$	(5) $1\frac{3}{20}$
41	42	43	44	45
(6) $\frac{3}{4}$	(6) $\frac{13}{20}$	(6) $1\frac{1}{18}$	(6) $1\frac{2}{15}$	(6) $1\frac{5}{21}$
(7) $\frac{17}{24}$	(7) $\frac{3}{5}$	(7) $1\frac{1}{8}$	(7) $1\frac{7}{20}$	(7) $1\frac{13}{84}$
(8) $\frac{41}{60}$	(8) $\frac{37}{60}$	(8) $1\frac{1}{24}$	(8) $1\frac{11}{30}$	(8) $\frac{2}{3}$
(9) $\frac{7}{10}$	(9) $\frac{23}{40}$	(9) $1\frac{1}{40}$	(9) $1\frac{29}{60}$	(9) $1\frac{8}{15}$
(10) $\frac{29}{45}$	(10) $\frac{11}{20}$	(10) $1\frac{1}{8}$	(10) $1\frac{1}{6}$	(10) $1\frac{4}{15}$
(11) $\frac{5}{8}$	(11) $\frac{1}{2}$	(11) $1\frac{1}{40}$	(11) $1\frac{7}{15}$	(11) $1\frac{1}{20}$

46	47	48	49	50
(1) $1\frac{7}{12}$	(1) $4\frac{1}{12}$	(1) $4\frac{5}{12}$	(1) $3\frac{11}{12}$	(1) $7\frac{1}{15}$
(2) $1\frac{13}{24}$	(2) $4\frac{5}{12}$	(2) $6\frac{1}{6}$	(2) $5\frac{2}{3}$	(2) $6\frac{4}{15}$
(3) $1\frac{19}{36}$	(3) $2\frac{7}{24}$	(3) $5\frac{1}{40}$	(3) $5\frac{47}{60}$	(3) $7\frac{11}{24}$
(4) $1\frac{17}{72}$	(4) $5\frac{1}{24}$	(4) $8\frac{1}{84}$	(4) $7\frac{20}{21}$	(4) $6\frac{1}{2}$
46	47	48	49	50
(5) 2	(5) $7\frac{11}{18}$	(5) $8\frac{11}{12}$	(5) $8\frac{1}{8}$	(5) 9
(6) $\frac{23}{24}$	(6) $3\frac{3}{20}$	(6) $8\frac{11}{15}$	(6) $5\frac{51}{56}$	(6) $7\frac{7}{8}$
(7) $1\frac{14}{15}$	(7) $3\frac{7}{8}$	(7) $8\frac{83}{90}$	(7) $8\frac{11}{15}$	(7) $7\frac{2}{21}$
(8) $2\frac{1}{8}$	(8) $5\frac{5}{9}$	(8) $5\frac{21}{44}$	(8) $9\frac{5}{24}$	(8) $7\frac{29}{48}$
(9) $1\frac{14}{45}$	(9) $10\frac{13}{72}$	(9) $8\frac{3}{4}$	(9) $7\frac{7}{60}$	(9) $9\frac{4}{45}$

F51-60 (4-6 min)

51	52	53	54	55
(1) $\frac{7}{12}$	(1) $\frac{13}{60}$	(1) $\frac{17}{24}$	(1) $1\frac{5}{12}$	(1) $1\frac{11}{12}$
(2) $\frac{5}{12}$	(2) $\frac{7}{10}$	(2) $\frac{19}{40}$	(2) $3\frac{37}{72}$	(2) $2\frac{11}{12}$
(3) $\frac{23}{60}$	(3) $\frac{23}{28}$	(3) $\frac{1}{2}$	(3) $1\frac{23}{45}$	(3) $3\frac{3}{5}$
(4) $\frac{13}{42}$	(4) $\frac{11}{24}$	(4) $\frac{7}{8}$	(4) $3\frac{3}{5}$	(4) $4\frac{11}{18}$
(5) $\frac{17}{30}$	(5) $\frac{31}{42}$	(5) $\frac{59}{72}$	(5) $1\frac{17}{36}$	(5) $5\frac{4}{5}$
51	52	53	54	55
(6) $\frac{1}{4}$	(6) $\frac{1}{24}$	(6) $\frac{5}{18}$	(6) $\frac{4}{9}$	(6) $3\frac{5}{6}$
(7) $\frac{11}{60}$	(7) $\frac{7}{24}$	(7) $\frac{17}{36}$	(7) $\frac{23}{90}$	(7) $3\frac{1}{4}$
(8) $\frac{2}{3}$	(8) $\frac{9}{40}$	(8) $\frac{23}{36}$	(8) 0	(8) $1\frac{2}{5}$
(9) 0	(9) $\frac{11}{24}$	(9) $\frac{13}{72}$	(9) $2\frac{1}{4}$	(9) $2\frac{4}{5}$
(10) $\frac{29}{42}$	(10) $\frac{13}{56}$	(10) 0	(10) $3\frac{22}{63}$	(10) $1\frac{4}{15}$

* 60a (2) Problem with borrowing 2 or borrowing twice

56	57	58	59	60
(1) $1\frac{2}{3}$	(1) $1\frac{1}{5}$	1. (1) $9\frac{3}{7}$	(1) $3\frac{7}{24}$	(1) $\frac{2}{15}$
(2) $1\frac{5}{18}$	(2) $2\frac{3}{4}$	(2) $9\frac{3}{7}$	(2) $1\frac{1}{3}$	(2)* $1\frac{4}{5}$
		(3) $3\frac{3}{7}$		
(3) $2\frac{1}{3}$	(3) $1\frac{11}{15}$	(4) $3\frac{3}{7}$	(3) $1\frac{5}{6}$	(3) $1\frac{3}{4}$
(4) $1\frac{11}{18}$	(4) $2\frac{1}{8}$	(5) $1\frac{2}{7}$	(4) $1\frac{1}{15}$	(4) $6\frac{1}{3}$
		(6) $1\frac{2}{7}$		
		2. $\boxed{2}, \boxed{4}, \boxed{6}$		
56	57	58	59	60
(5) $1\frac{7}{20}$	(5) $1\frac{5}{6}$	3. (1) $1\frac{3}{8}$	(5) $4\frac{5}{6}$	(5) $1\frac{1}{12}$
(6) $1\frac{1}{6}$	(6) 3	(2) $1\frac{3}{8}$	(6) $5\frac{3}{4}$	(6) $1\frac{17}{60}$
(7) $2\frac{2}{3}$	(7) $4\frac{5}{12}$	(3) $1\frac{7}{12}$	(7) $\frac{1}{2}$	(7) $1\frac{9}{20}$
(8) $\frac{2}{3}$	(8) $10\frac{2}{7}$	(4) $5\frac{7}{30}$	(8) $2\frac{1}{10}$	

F61-70 (3-5 min)

61	62	63	64	65
(1) 2	(1) $\frac{1}{2}$	(1) 14	(1) $\frac{3}{7}$	(1) $\frac{1}{2}$
(2) 18	(2) $\frac{1}{2}$	(2) $\frac{1}{5}$	(2) $1\frac{1}{6}$	(2) $\frac{3}{14}$
(3) 8	(3) $\frac{1}{6}$	(3) 13	(3) $2\frac{1}{2}$	(3) $\frac{3}{4}$
(4) 0				
(5) 4	(4) $\frac{2}{9}$	(4) $\frac{2}{3}$	(4) $\frac{3}{10}$	(4) $\frac{1}{5}$
(6) 15	(5) 14	(5) $\frac{1}{5}$	(5) $\frac{5}{24}$	(5) $\frac{1}{4}$
(7) 6				
(8) 2				
61	62	63	64	65
(9) $\frac{1}{7}$	(6) $\frac{1}{6}$	(6) $\frac{6}{7}$	(6) $\frac{1}{10}$	(6) $\frac{2}{5}$
(10) $\frac{1}{4}$	(7) $\frac{2}{3}$	(7) $\frac{1}{6}$	(7) $\frac{1}{6}$	(7) $\frac{2}{3}$
(11) $\frac{1}{3}$	(8) $\frac{1}{4}$	(8) $\frac{6}{7}$	(8) $\frac{7}{9}$	(8) 4
(12) $\frac{5}{6}$	(9) $\frac{1}{12}$	(9) $\frac{1}{6}$	(9) $\frac{1}{8}$	(9) $\frac{1}{5}$
(13) $\frac{2}{5}$	(10) $2\frac{2}{3}$	(10) $\frac{1}{2}$	(10) $\frac{2}{5}$	(10) $\frac{2}{5}$
(14) $\frac{1}{6}$				

66	67	68	69	70
(1) $\frac{3}{4}$	(1) $\frac{1}{3}$	(1) $1\frac{7}{16}$	(1) $1\frac{7}{12}$	(1) 16
(2) $\frac{4}{5}$	(2) $\frac{1}{18}$	(2) $\frac{2}{5}$	(2) $\frac{1}{4}$	(2) $\frac{8}{15}$
(3) $\frac{1}{8}$	(3) 1	(3) $6\frac{1}{2}$	(3) $7\frac{1}{5}$	(3) $\frac{1}{7}$
(4) $\frac{11}{24}$	(4) $2\frac{2}{3}$	(4) $\frac{1}{8}$	(4) $\frac{5}{6}$	
66	67	68	69	70
(5) $\frac{2}{27}$	(5) $\frac{1}{4}$	(5) $\frac{9}{10}$	(5) $\frac{9}{20}$	(4) $8\frac{3}{4}$
(6) 2	(6) 40	(6) $\frac{7}{8}$	(6) $\frac{3}{4}$	(5) $3\frac{2}{15}$
(7) $\frac{1}{3}$	(7) $\frac{1}{9}$	(7) $\frac{3}{8}$	(7) $1\frac{2}{5}$	(6) $1\frac{1}{2}$
(8) $\frac{5}{9}$	(8) 11	(8) $\frac{3}{5}$	(8) $\frac{2}{5}$	

F71-80 (3-5 min)

71	72	73	74	75
(1) 14	(1) 6	(1) $1\frac{1}{3}$	(1) $11\frac{4}{5}$	(1) $3\frac{2}{3}$
(2) 11	(2) 4	(2) $6\frac{1}{3}$	(2) $1\frac{2}{5}$	(2) $\frac{1}{5}$
(3) 2	(3) 6	(3) $7\frac{7}{10}$	(3) 8	(3) $9\frac{1}{2}$
(4) 7	(4) 24	(4) $\frac{1}{2}$	(4) $6\frac{4}{7}$	(4) $\frac{1}{3}$
(5) 6	(5) 5	(5) $\frac{2}{3}$	(5) $3\frac{1}{3}$	(5) $2\frac{1}{2}$
(6) 1	(6) 7	(6) $1\frac{2}{3}$	(6) $1\frac{1}{3}$	
71	72	73	74	75
(7) 17	(7) $5\frac{2}{3}$	(7) $3\frac{2}{3}$	(7) $2\frac{6}{7}$	(6) $\frac{1}{3}$
(8) 22	(8) $7\frac{6}{7}$	(8) $2\frac{3}{4}$	(8) $3\frac{2}{3}$	(7) $7\frac{1}{2}$
(9) 11	(9) $2\frac{3}{5}$	(9) $8\frac{2}{9}$	(9) $4\frac{1}{2}$	(8) $3\frac{1}{5}$
(10) 13				
(11) 12	(10) $1\frac{3}{5}$	(10) $2\frac{1}{5}$	(10) $\frac{3}{5}$	(9) $\frac{1}{7}$
(12) 2	(11) $7\frac{4}{5}$	(11) $6\frac{1}{3}$	(11) $1\frac{1}{2}$	(10) 6
(13) 1				
(14) 23	(12) $\frac{3}{4}$	(12) $5\frac{1}{2}$	(12) $2\frac{1}{2}$	

76	77	78	79	80
(1) $\frac{3}{4}$	(1) $\frac{1}{2}$	(1) 1	(1) $1\frac{1}{2}$	(1) $\frac{7}{8}$
(2) $\frac{1}{3}$	(2) $1\frac{2}{15}$	(2) $6\frac{7}{24}$	(2) $2\frac{1}{3}$	(2) $\frac{5}{18}$
(3) $\frac{7}{10}$	(3) $1\frac{1}{6}$	(3) $\frac{1}{6}$	(3) $\frac{1}{2}$	
(4) $2\frac{3}{5}$	(4) $\frac{1}{6}$	(4) $1\frac{1}{8}$	(4) $1\frac{1}{3}$	(3) $1\frac{1}{2}$
(5) $4\frac{3}{4}$	(5) $2\frac{1}{2}$	(5) $\frac{1}{12}$	(5) $\frac{1}{2}$	(4) $1\frac{7}{24}$
76	77	78	79	80
(6) $\frac{1}{4}$	(6) $\frac{1}{8}$	(6) $1\frac{1}{12}$	(6) $3\frac{3}{4}$	(5) $1\frac{1}{14}$
(7) $1\frac{1}{6}$	(7) $1\frac{1}{2}$	(7) $7\frac{1}{8}$	(7) $1\frac{1}{2}$	(6) $2\frac{5}{6}$
(8) $\frac{3}{5}$	(8) $1\frac{1}{24}$	(8) $3\frac{1}{2}$	(8) $1\frac{1}{6}$	(7) $1\frac{5}{14}$
(9) $3\frac{4}{7}$	(9) 1	(9) $2\frac{2}{3}$	(9) $1\frac{1}{4}$	(8) $\frac{1}{2}$

F81-90 (3-5 min)

81	82	83	84	85
(1) 18	(1) $\frac{3}{7}$	(1) 4	(1) 9	(1) $\frac{1}{20}$
(2) 10	(2) $\frac{3}{7}$	(2) $\frac{4}{15}$	(2) $\frac{6}{7}$	(2) $3\frac{1}{12}$
(3) 1	(3) $\frac{5}{6}$	(3) $\frac{1}{2}$	(3) $\frac{1}{12}$	(3) $\frac{13}{30}$
(4) 34				
(5) 40	(4) $\frac{2}{3}$	(4) $1\frac{5}{7}$	(4) $1\frac{1}{3}$	(4) $\frac{13}{24}$
(6) 2	(5) $1\frac{2}{5}$	(5) $1\frac{2}{3}$	(5) 2	(5) $\frac{1}{6}$
(7) 28				
(8) 8	(6) $1\frac{1}{4}$			
81	82	83	84	85
(9) $\frac{5}{6}$	(7) 8	(6) $3\frac{1}{5}$	(6) $\frac{1}{3}$	(6) $\frac{1}{2}$
(10) $\frac{5}{24}$	(8) 18	(7) $\frac{1}{9}$	(7) $\frac{13}{30}$	(7) $\frac{1}{5}$
(11) $\frac{7}{24}$	(9) 21			
(12) $\frac{1}{2}$	(10) 10	(8) 9	(8) $\frac{1}{2}$	(8) 54
(13) 8	(11) 12	(9) $\frac{19}{30}$	(9) $\frac{10}{27}$	(9) $\frac{1}{40}$
(14) $\frac{3}{4}$	(12) 15			

86	87	88	89	90
(1) $\frac{1}{12}$	(1) $2\frac{2}{3}$	(1) $2\frac{1}{8}$	(1) $4\frac{13}{15}$	(1) 1
(2) $\frac{3}{8}$	(2) $\frac{5}{18}$	(2) $\frac{5}{9}$	(2) $2\frac{11}{14}$	(2) $2\frac{9}{10}$
(3) $\frac{3}{4}$	(3) $4\frac{3}{4}$	(3) $1\frac{11}{36}$	(3) $3\frac{1}{8}$	(3) 3
(4) $\frac{7}{36}$	(4) $\frac{1}{10}$	(4) $\frac{11}{40}$	(4) 1	(4) $\frac{1}{2}$
86	87	88	89	90
(5) $1\frac{3}{5}$	(5) $3\frac{1}{9}$	(5) $\frac{11}{48}$	(5) $\frac{4}{15}$	(5) $1\frac{1}{30}$
(6) $3\frac{3}{4}$	(6) $8\frac{1}{6}$	(6) $\frac{2}{3}$	(6) $1\frac{4}{5}$	(6) $1\frac{5}{7}$
(7) $1\frac{2}{5}$	(7) $\frac{5}{14}$	(7) $\frac{1}{5}$	(7) $\frac{2}{11}$	(7) $1\frac{1}{7}$
(8) $3\frac{1}{8}$	(8) $2\frac{2}{3}$	(8) 54		

F91–100 (4–6 min)

91	92	93	94	95
(1) $\frac{2}{5}$	(1) $\frac{4}{7}$	(1) $\frac{7}{30}$	(1) $\frac{5}{8}$	(1) $1\frac{1}{3}$
(2) $\frac{3}{7}$	(2) $\frac{1}{7}$	(2) $\frac{1}{6}$	(2) $2\frac{4}{5}$	(2) $13\frac{1}{5}$
(3) $\frac{1}{9}$	(3) $1\frac{1}{9}$	(3) $\frac{1}{2}$	(3) $\frac{6}{7}$	
(4) $\frac{13}{24}$	(4) $\frac{3}{5}$	(4) $\frac{2}{3}$	(4) $1\frac{11}{40}$	(3) $\frac{1}{21}$
(5) $\frac{4}{9}$	(5) $3\frac{3}{8}$	(5) $\frac{9}{14}$	(5) $\frac{2}{7}$	(4) $\frac{2}{7}$
91	92	93	94	95
(6) $2\frac{2}{9}$	(6) $\frac{23}{36}$	(6) $1\frac{15}{16}$	(6) $\frac{4}{5}$	(5) $1\frac{3}{8}$
(7) $\frac{1}{4}$	(7) $2\frac{7}{36}$	(7) $2\frac{13}{15}$	(7) $1\frac{5}{8}$	(6) $1\frac{1}{7}$
(8) $\frac{13}{24}$	(8) $1\frac{3}{5}$	(8) $\frac{1}{5}$	(8) $\frac{3}{7}$	(7) $\frac{7}{10}$
(9) $\frac{6}{11}$	(9) $1\frac{2}{5}$	(9) $2\frac{1}{2}$	(9) 3	(8) $\frac{4}{21}$

96	97	98	99	100
1. (1) 21	(1) 150	(1) $\frac{1}{3}$	(1) $5\frac{5}{18}$	(1) $\frac{1}{5}$
(2) 21	(2) 150	(2) $\frac{7}{30}$	(2) $\frac{1}{40}$	(2) $\frac{3}{10}$
(3) 16	(3) 300			
(4) 16	(4) 400			
(5) 27	(5) 90	(3) $\frac{2}{5}$	(3) 5	(3) $1\frac{1}{15}$
(6) 27	(6) 30	(4) 8	(4) 5	(4) $1\frac{1}{3}$
(7) 1	(7) 20			
(8) 1	(8) 5			
2. <u>2</u> , <u>4</u> , <u>6</u> , <u>8</u>				
96	97	98	99	100
3. (1) $\frac{1}{7}$	(9) $\frac{3}{40}$	(5) 2	(5) $1\frac{7}{36}$	(5) 8
(2) $\frac{1}{7}$	(10) $\frac{7}{24}$	(6) 2	(6) $1\frac{7}{36}$	(6) $\frac{1}{3}$
(3) $\frac{1}{3}$	(11) $8\frac{5}{6}$			
(4) $\frac{3}{7}$	(12) $\frac{2}{21}$	(7) $4\frac{1}{20}$	(7) $\frac{1}{2}$	(7) 30
(5) $\frac{3}{7}$	(13) $\frac{1}{3}$	(8) $\frac{9}{20}$	(8) $\frac{2}{7}$	
(6) 6	(14) $\frac{7}{16}$			
4. <u>2</u> , <u>5</u>				

F101–110 (4–6 min)

101	102	103	104	105
(1) $\frac{1}{2}$	(1) $\frac{3}{5}$	(1) $\frac{2}{3}$	(1) $\frac{1}{7}$	(1) $\frac{1}{25}$
(2) $\frac{2}{15}$	(2) $1\frac{3}{10}$	(2) $2\frac{1}{4}$	(2) $\frac{4}{9}$	(2) $\frac{17}{21}$
(3) $\frac{1}{2}$	(3) $\frac{1}{2}$	(3) $1\frac{1}{9}$	(3) $1\frac{1}{2}$	(3) $1\frac{7}{16}$
(4) $1\frac{1}{12}$	(4) $\frac{1}{15}$	(4) $\frac{4}{5}$	(4) $\frac{5}{7}$	(4) $\frac{1}{2}$
101	102	103	104	105
(5) $\frac{1}{5}$	(5) $3\frac{2}{9}$	(5) $1\frac{1}{24}$	(5) $\frac{4}{9}$	(5) $\frac{21}{40}$
(6) $\frac{1}{3}$	(6) $\frac{7}{20}$	(6) $\frac{17}{18}$	(6) $\frac{1}{2}$	(6) 2
(7) $\frac{1}{14}$	(7) $1\frac{1}{10}$	(7) $7\frac{1}{42}$	(7) $3\frac{1}{2}$	(7) $3\frac{2}{7}$

106	107	108	109	110
(1) $\frac{8}{21}$	(1) $1\frac{2}{5}$	(1) $\frac{3}{10}$	(1) $\frac{7}{18}$	(1) 1
(2) $1\frac{1}{2}$	(2) $3\frac{1}{6}$	(2) $\frac{5}{8}$	(2) $1\frac{17}{24}$	(2) $\frac{1}{12}$
(3) $\frac{5}{6}$	(3) $\frac{23}{27}$	(3) $5\frac{1}{3}$	(3) $\frac{8}{15}$	(3) $1\frac{3}{5}$
(4) $1\frac{1}{6}$	(4) $\frac{5}{14}$	(4) $\frac{7}{10}$	(4) $\frac{1}{12}$	(4) $\frac{1}{2}$
106	107	108	109	110
(5) $\frac{4}{5}$	(5) $1\frac{14}{15}$	(5) 2	(5) $3\frac{19}{24}$	(5) $1\frac{1}{2}$
(6) $\frac{1}{8}$	(6) $\frac{1}{2}$	(6) $\frac{1}{5}$	(6) $1\frac{1}{10}$	(6) $\frac{1}{5}$
(7) $\frac{5}{48}$	(7) $1\frac{1}{4}$	(7) $1\frac{1}{2}$	(7) $1\frac{5}{8}$	(7) 1

F111-120 (4-6 min)

111	112	113	114	115
(1) $\frac{3}{5}$	(1) $1\frac{3}{7}$	(1) $1\frac{5}{8}$	(1) $\frac{1}{8}$	(1) $3\frac{1}{8}$
(2) 4	(2) $1\frac{4}{7}$	(2) $\frac{17}{50}$	(2) $4\frac{2}{5}$	(2) $2\frac{1}{8}$
(3) $\frac{5}{8}$	(3) $\frac{9}{10}$	(3) $5\frac{1}{2}$	(3) $1\frac{1}{10}$	(3) $1\frac{1}{6}$
(4) 1	(4) $\frac{7}{8}$	(4) $\frac{23}{30}$	(4) 3	(4) $1\frac{2}{3}$
111	112	113	114	115
(5) $\frac{5}{6}$	(5) $1\frac{1}{12}$	(5) 3	(5) $\frac{1}{8}$	(5) $\frac{9}{40}$
(6) $1\frac{1}{30}$	(6) $\frac{1}{4}$	(6) $2\frac{2}{3}$	(6) $\frac{1}{12}$	(6) $\frac{1}{4}$
(7) 36	(7) 3	(7) $\frac{2}{3}$	(7) $1\frac{6}{7}$	(7) $4\frac{5}{24}$
(8) $\frac{3}{5}$	(8) $3\frac{4}{5}$	(8) $\frac{1}{8}$	(8) $\frac{11}{30}$	(8) $2\frac{3}{4}$

116	117	118	119	120
(1) $\frac{2}{5}$	(1) $3\frac{7}{20}$	(1) $\frac{13}{15}$	(1) $5\frac{2}{5}$	(1) $\frac{5}{8}$
(2) $\frac{10}{27}$	(2) $2\frac{1}{4}$	(2) $\frac{13}{60}$	(2) $5\frac{2}{5}$	(2) $2\frac{7}{10}$
(3) $1\frac{19}{30}$	(3) 0	(3) $\frac{2}{3}$	(3) $\frac{1}{2}$	(3) $1\frac{1}{24}$
(4) $\frac{1}{20}$	(4) $\frac{1}{40}$	(4) $\frac{4}{5}$	(4) 5	(4) 18
116	117	118	119	120
(5) $2\frac{7}{24}$	(5) $\frac{7}{30}$	(5) $\frac{1}{4}$	(5) $1\frac{9}{22}$	(5) $1\frac{4}{9}$
(6) $\frac{3}{8}$	(6) $1\frac{1}{4}$	(6) $\frac{3}{10}$	(6) $1\frac{1}{2}$	(6) 11
(7) $\frac{7}{15}$	(7) $6\frac{1}{6}$	(7) $1\frac{1}{5}$	(7) $\frac{7}{20}$	(7) $5\frac{1}{2}$
(8) $\frac{1}{20}$	(8) $4\frac{5}{6}$	(8) $\frac{5}{18}$	(8) $\frac{1}{6}$	(8) 1

F121-130 (4-6 min)

121	122	123	124	125
(1) $2\frac{1}{2}$	(1) $2\frac{1}{2}$	(1) $1\frac{3}{5}$	(1) 4	(1) $6\frac{1}{4}$
(2) $1\frac{1}{5}$	(2) $\frac{2}{35}$	(2) $5\frac{1}{3}$	(2) $3\frac{1}{3}$	(2) $2\frac{5}{6}$
(3) $1\frac{2}{5}$	(3) $3\frac{1}{3}$	(3) $1\frac{19}{24}$	(3) $1\frac{2}{5}$	(3) $1\frac{4}{15}$
(4) $\frac{1}{20}$	(4) $2\frac{5}{8}$	(4) $3\frac{1}{6}$	(4) $1\frac{2}{5}$	(4) $5\frac{7}{10}$
121	122	123	124	125
(5) 5	(5) $\frac{5}{6}$	(5) $1\frac{5}{12}$	(5) $\frac{13}{40}$	(5) $10\frac{1}{2}$
(6) 11	(6) $1\frac{2}{3}$	(6) $\frac{37}{70}$	(6) $1\frac{1}{2}$	(6) $2\frac{1}{4}$
(7) $\frac{1}{6}$	(7) $\frac{11}{60}$	(7) $1\frac{13}{14}$	(7) $\frac{2}{5}$	
(8) $\frac{1}{2}$				

126	127	128	129	130
(1) $1\frac{1}{8}$	(1) $\frac{19}{30}$	(1) 1	(1) $1\frac{7}{8}$	(1) $\frac{7}{9}$
(2) $4\frac{5}{24}$	(2) $12\frac{1}{8}$	(2) $1\frac{1}{50}$	(2) $\frac{18}{25}$	(2) $4\frac{1}{3}$
(3) $4\frac{4}{5}$	(3) $2\frac{4}{9}$	(3) 1	(3) $3\frac{5}{12}$	
126	127	128	129	130
(4) $4\frac{2}{5}$	(4) $\frac{9}{10}$	(4) $2\frac{5}{12}$	(4) $5\frac{6}{7}$	(3) $2\frac{2}{5}$
(5) $\frac{3}{5}$	(5) $1\frac{1}{6}$	(5) $5\frac{11}{20}$	(5) $5\frac{1}{2}$	(4) $1\frac{1}{2}$

F131-140 (3-5 min)

* I34b 2.(4) Problem with a decimal which should be changed into irreducible fraction

131	132	133	134	135
1. (1) $\frac{7}{10}$	(1) $\frac{2}{5}$	1. (1) $2\frac{7}{10}$	1. (1) $\frac{4}{5}$	1. (1) $1\frac{1}{2}$
(2) $\frac{9}{10}$	(2) $\frac{7}{50}$	(2) $3\frac{9}{10}$	(2) $2\frac{3}{5}$	(2) $3\frac{2}{5}$
(3) $\frac{27}{100}$	(3) $\frac{9}{50}$	(3) $6\frac{1}{10}$	(3) $4\frac{1}{5}$	(3) $4\frac{1}{4}$
(4) $\frac{3}{100}$	(4) $\frac{6}{25}$	(4) $10\frac{3}{10}$	(4) $5\frac{1}{4}$	(4) $6\frac{9}{25}$
2. (1) $\frac{1}{5}$	(5) $\frac{8}{25}$	(5) $4\frac{11}{100}$	(5) $7\frac{12}{25}$	(5) $8\frac{9}{20}$
(2) $\frac{1}{2}$	(6) $\frac{16}{25}$	(6) $5\frac{7}{100}$	(6) $9\frac{3}{4}$	(6) $13\frac{3}{4}$
(3) $\frac{3}{5}$	(7) $\frac{8}{125}$	(7) $7\frac{77}{100}$	(7) $12\frac{1}{8}$	(7) $6\frac{3}{8}$
(4) $\frac{4}{5}$		(8) $12\frac{13}{100}$		
131	132	133	134	135
(5) $\frac{1}{2}$	(8) $\frac{1}{20}$	2. (1) $1\frac{2}{5}$	2. (1) $\frac{2}{5}$	2. (1) $\frac{27}{70}$
(6) $\frac{3}{20}$	(9) $\frac{4}{25}$	(2) $2\frac{1}{2}$	(2) $4\frac{3}{10}$	(2) $\frac{3}{14}$
(7) $\frac{7}{20}$	(10) $\frac{1}{4}$	(3) $3\frac{3}{25}$	(3) $\frac{1}{5}$	(3) $1\frac{1}{4}$
(8) $\frac{9}{20}$	(11) $\frac{9}{25}$	(4) $4\frac{1}{4}$	(4)* $4\frac{4}{5}$	(4) $\frac{2}{45}$
(9) $\frac{3}{4}$	(12) $\frac{14}{25}$	(5) $5\frac{4}{25}$	(5) $2\frac{1}{4}$	(5) $\frac{2}{5}$
(10) $\frac{3}{200}$	(13) $\frac{3}{40}$	(6) $7\frac{9}{20}$	(6) $1\frac{3}{5}$	(6) $\frac{1}{3}$
(11) $\frac{1}{40}$	(14) $\frac{21}{250}$	(7) $8\frac{3}{4}$	(7) $4\frac{1}{15}$	(7) $\frac{1}{3}$
(12) $\frac{1}{8}$	(15) $\frac{1}{8}$	(8) $9\frac{1}{8}$	(8) $2\frac{1}{20}$	(8) $\frac{1}{2}$

136	137	138	139	140
(1) $2\frac{1}{5}$	(1) $\frac{1}{2}$	(1) $6\frac{18}{35}$	(1) $18\frac{13}{15}$	(1) $1\frac{43}{60}$
(2) $6\frac{23}{30}$	(2) $\frac{2}{3}$	(2) $7\frac{1}{10}$	(2) $2\frac{19}{55}$	(2) $2\frac{19}{80}$
(3) $3\frac{5}{6}$	(3) 30	(3) $3\frac{1}{12}$	(3) $3\frac{11}{30}$	(3) $\frac{21}{25}$
(4) $2\frac{13}{14}$	(4) $\frac{9}{25}$	(4) $\frac{1}{8}$	(4) 9	(4) $\frac{2}{5}$
(5) $2\frac{7}{30}$	(5) 3			
136	137	138	139	140
(6) $1\frac{1}{5}$	(6) 6	(5) 3	(5) $\frac{3}{20}$	(5) $4\frac{1}{2}$
(7) $3\frac{13}{30}$	(7) $3\frac{1}{3}$	(6) $\frac{3}{5}$	(6) $1\frac{1}{2}$	(6) 2
(8) $3\frac{2}{15}$	(8) $\frac{4}{5}$	(7) $\frac{4}{5}$	(7) $\frac{4}{21}$	(7) $1\frac{1}{8}$
(9) $\frac{3}{8}$	(9) $8\frac{1}{3}$	(8) $\frac{1}{2}$	(8) $\frac{4}{5}$	(8) 10
(10) $1\frac{1}{100}$	(10) $11\frac{1}{10}$			

F141–150 (4–6 min)

141	142	143	144	145
(1) $\frac{2}{3}$	(1) $1\frac{7}{8}$	(1) $\frac{5}{12}$	(1) $\frac{27}{100}$	(1) $\frac{1}{4}$
(2) $\frac{12}{25}$	(2) 8	(2) $\frac{1}{5}$	(2) $6\frac{2}{5}$	(2) $\frac{5}{21}$
(3) $\frac{18}{25}$	(3) $6\frac{1}{4}$	(3) 7	(3) $\frac{3}{16}$	(3) $1\frac{4}{7}$
(4) $2\frac{1}{2}$	(4) $\frac{1}{5}$	(4) $\frac{1}{2}$	(4) 3	(4) $\frac{11}{70}$
141	142	143	144	145
(5) $\frac{4}{9}$	(5) 27	(5) 1	(5) $1\frac{1}{3}$	(5) 1
(6) $1\frac{1}{4}$	(6) $1\frac{11}{25}$	(6) $2\frac{8}{21}$	(6) $\frac{2}{15}$	(6) $\frac{2}{5}$
(7) $\frac{1}{6}$	(7) 3	(7) $1\frac{7}{25}$	(7) $5\frac{1}{3}$	(7) $\frac{1}{25}$

146	147	148	149	150
(1) $1\frac{6}{19}$	(1) 2	(1) $\frac{4}{25}$	(1) $\frac{7}{24}$	(1) $1\frac{9}{10}$
(2) $\frac{7}{9}$	(2) $\frac{7}{10}$	(2) $\frac{2}{9}$	(2) 2	(2) $1\frac{7}{12}$
(3) $\frac{1}{3}$	(3) $\frac{3}{25}$	(3) $8\frac{1}{10}$	(3) $4\frac{14}{15}$	(3) 3
146	147	148	149	150
(4) $\frac{1}{2}$	(4) $\frac{3}{35}$	(4) $\frac{2}{5}$	(4) $\frac{3}{5}$	(4) 5
(5) $\frac{1}{50}$	(5) $1\frac{13}{22}$	(5) $\frac{3}{4}$	(5) 2	(5) $\frac{2}{3}$
(6) $\frac{1}{5}$	(6) $8\frac{1}{3}$	(6) $1\frac{1}{4}$	(6) $1\frac{2}{5}$	(6) 2

F151–160 (4–6 min)

151	152	153	154	155
(1) $\frac{3}{8}$	(1) $1\frac{1}{14}$	(1) $\frac{1}{5}$	(1) $1\frac{3}{4}$	(1) $\frac{5}{36}$
(2) $\frac{1}{6}$	(2) $2\frac{4}{7}$	(2) $4\frac{3}{5}$	(2) 0	(2) $\frac{1}{3}$
(3) $\frac{3}{32}$	(3) $\frac{3}{10}$	(3) $\frac{19}{30}$	(3) $1\frac{1}{2}$	(3) $1\frac{1}{9}$
151	152	153	154	155
(4) 1	(4) $\frac{1}{10}$	(4) $3\frac{9}{17}$	(4) $1\frac{1}{3}$	(4) $1\frac{1}{2}$
(5) $\frac{11}{12}$	(5) $\frac{5}{24}$	(5) $1\frac{1}{50}$	(5) $\frac{3}{25}$	(5) $2\frac{4}{9}$

F151-160

[illegible]

F161-166 (4-6 min)

161	162	163
<p>(1)</p> $\frac{3}{4} + \frac{2}{3} = 1\frac{5}{12}$ $1\frac{5}{12} \text{ kg}$	<p>(1)</p> $2\frac{1}{5} - \frac{9}{10} = 1\frac{3}{10}$ $1\frac{3}{10} \text{ kg}$	<p>(1)</p> $\frac{4}{5} \times 3 = 2\frac{2}{5}$ $2\frac{2}{5} \text{ kg}$
<p>(2)</p> $\frac{3}{5} + \frac{1}{4} = \frac{17}{20}$ $\frac{17}{20} \text{ kg}$	<p>(2)</p> $4 - 1\frac{2}{3} = 2\frac{1}{3}$ $2\frac{1}{3} \text{ kg}$	<p>(2)</p> $1\frac{3}{5} \times 15 = 24$ 24ℓ
161	162	163
<p>(3)</p> $1\frac{1}{2} + 3\frac{5}{6} = 5\frac{1}{3}$ $5\frac{1}{3} \text{ km}$	<p>(3)</p> $2\frac{7}{9} - \frac{5}{6} = 1\frac{17}{18}$ $1\frac{17}{18} \text{ km}$	<p>(3)</p> $\frac{8}{9} \div 4 = \frac{2}{9}$ $\frac{2}{9} \ell$
<p>(4)</p> $\frac{3}{4} + \frac{2}{3} + \frac{1}{2} = 1\frac{11}{12}$ $1\frac{11}{12} \text{ m}$	<p>(4)</p> $2\frac{2}{3} - 1\frac{1}{2} - \frac{7}{10} = \frac{7}{15}$ $\frac{7}{15} \text{ m}$	<p>(4)</p> $3\frac{3}{4} \div 5 = \frac{3}{4}$ $\frac{3}{4} \text{ kg}$

164	165	166
<p>(1)</p> $300 \times \frac{3}{4} = 225$ <p style="text-align: right;"><u>225 ℓ</u></p>	<p>(1)</p> $\frac{2}{3} \times 120 = 80$ <p style="text-align: right;"><u>80 m</u></p>	<p>(1)</p> $\textcircled{1} \frac{2}{3} \times 600 = 400$ $\frac{1}{4} \times 600 = 150$ <p style="text-align: right;"><u>400 g, 150 g</u></p>
<p>(2)</p> $12 \times 3\frac{3}{4} = 45$ <p style="text-align: right;"><u>45 km</u></p>	<p>(2)</p> $\frac{2}{5} \times 180 = 72$ <p style="text-align: right;"><u>72 ml</u></p>	<p>$\textcircled{2} 400 + 150 = 550$</p> <p style="text-align: right;"><u>550 g</u></p>
164	165	166
<p>(3)</p> $\frac{3}{4} \times 7 = 5\frac{1}{4}$ <p style="text-align: right;"><u>5$\frac{1}{4}$ km</u></p>	<p>(3)</p> $\frac{1}{6} \times 720 = 120$ <p style="text-align: right;"><u>120 g</u></p>	<p>(2)</p> $\frac{3}{5} \times 900 = 540$ $\frac{1}{6} \times 900 = 150$ $540 + 150 = 690$ <p style="text-align: right;"><u>690 g</u></p>
<p>(4)</p> $1\frac{1}{5} \times 10 = 12$ <p style="text-align: right;"><u>12 km</u></p>	<p>(4)</p> $\frac{2}{15} \times 600 = 80$ <p style="text-align: right;"><u>80 g</u></p>	<p>(3)</p> $\frac{2}{7} \times 280 = 80$ $\frac{1}{4} \times 280 = 70$ $80 + 70 = 150$ <p style="text-align: right;"><u>150 pages</u></p>

F167-170 (4-6 min)

The intermediate steps may differ from what is indicated in the Answer Book. Mark as correct if the steps are correct.

167	168
<p>(1)</p> <p>① $\frac{3}{8} \times 4000 = 1500$</p> <p style="text-align: right;"><u>1500 m²</u></p>	<p>(1)</p> <p>① $\frac{1}{3} \times 750 = 250$</p> <p>$\frac{2}{5} \times 750 = 300$</p> <p>$250 + 300 = 550$</p> <p style="text-align: right;"><u>550 ml</u></p> <p>② $750 - \boxed{550} = 200$</p> <p style="text-align: right;"><u>200 ml</u></p>
<p>② $4000 - 1500 = 2500$</p> <p style="text-align: right;"><u>2500 m²</u></p>	<p style="text-align: center;">168</p>
167	168
<p>(2)</p> <p>$\frac{4}{9} \times 45 = 20$</p> <p>$45 - 20 = 25$</p> <p style="text-align: right;"><u>25 passengers</u></p>	<p>(2)</p> <p>① $\frac{1}{3} \times 720 = 240$</p> <p>$\frac{3}{8} \times 720 = 270$</p> <p>$\frac{1}{12} \times 720 = 60$</p> <p><u>240 sheets, 270 sheets, 60 sheets</u></p> <p>② $720 - (\boxed{240} + \boxed{270} + \boxed{60}) = 150$</p> <p style="text-align: right;"><u>150 sheets</u></p>
<p>(3)</p> <p>$\frac{8}{21} \times 420 = 160$</p> <p>$420 - 160 = 260$</p> <p style="text-align: right;"><u>260 m</u></p>	<p>(3)</p> <p>① $\frac{2}{9} \times 360 = 80$</p> <p>$\frac{1}{4} \times 360 = 90$</p> <p>$\frac{5}{18} \times 360 = 100$</p> <p>$80 + 90 + 100 = 270$</p> <p style="text-align: right;"><u>270 pages</u></p> <p>② $360 - 270 = 90$</p> <p style="text-align: right;"><u>90 pages</u></p>

169	170
<p>(1)</p> <p>① $\frac{1}{2}$</p> <p>$\frac{1}{2} \times 420 = 210$</p> <p><u>210 trees</u></p> <p>② $420 - 210 = 210$</p> <p><u>210 trees</u></p> <p>③ $\frac{4}{7} \times 210 = 120$</p> <p><u>120 trees</u></p>	<p>1.</p> <p>(1)</p> <p>① $\frac{5}{12} \times 1440 = 600$ <u>600 g</u></p> <p>② The remaining honey after I received my portion is</p> <p>$1440 - 600 = 840$</p> <p>The amount of honey my brother received is</p> <p>$\frac{3}{7} \times 840 = 360$</p> <p>The amount of honey my sister received is</p> <p>$840 - 360 = 480$ <u>480 g</u></p>
169	170
<p>(2)</p> <p>① $\frac{3}{5}$</p> <p>$\frac{3}{5} \times 4000 = 2400$</p> <p><u>2400 m</u></p> <p>② $4000 - 2400 = 1600$</p> <p>$\frac{3}{4}$</p> <p>$\frac{3}{4} \times 1600 = 1200$ <u>1200 m</u></p> <p>③ $1600 - 1200 = 400$ <u>400 m</u></p>	<p>2.</p> <p>(1) $\frac{9}{10}$</p> <p>(2) $1\frac{1}{14}$</p>

F171-177 (5-7 min)

171	172	173	174	175
(1) $\frac{3}{5}$	(1) $\frac{1}{2}$	(1) $x = \frac{4}{7}$	(1) $x = 2$	(1) $x = 180$
(2) $\frac{5}{8}$	(2) $\frac{1}{7}$	(2) $x = \frac{2}{3}$	(2) $x = \frac{3}{4}$	(2) $x = \frac{3}{14}$
(3) $\frac{5}{7}$	(3) $\frac{3}{5}$	(3) $x = \frac{1}{3}$	(3) $x = \frac{2}{3}$	(3) $x = 540$
(4) $4\frac{2}{9}$	(4) $\frac{1}{7}$	(4) $x = \frac{1}{12}$	(4) $x = \frac{2}{3}$	(4) $x = \frac{3}{4}$
(5) $\frac{1}{3}$	(5) $\frac{1}{3}$	(5) $x = \frac{1}{2}$	(5) $x = \frac{2}{3}$	(5) $x = 2400$
(6) $\frac{1}{4}$	(6) $\frac{3}{4}$	(6) $x = \frac{7}{9}$	(6) $x = \frac{1}{3}$	
171	172	173	174	175
(7) $\frac{5}{7}$	(7) $\frac{1}{2}$	(7) $x = \frac{5}{7}$	(7) $x = \frac{1}{6}$	(6) $x = 400$
(8) $\frac{3}{5}$	(8) $\frac{3}{7}$	(8) $x = \frac{3}{4}$	(8) $x = \frac{1}{3}$	(7) $x = 1600$
(9) $\frac{2}{3}$	(9) $\frac{4}{7}$	(9) $x = \frac{3}{5}$	(9) $x = \frac{2}{3}$	(8) $x = 12$
(10) 6	(10) $\frac{3}{5}$	(10) $x = 1\frac{1}{3}$	(10) $x = \frac{3}{4}$	(9) $x = 900$
(11) $\frac{1}{2}$	(11) $\frac{3}{7}$	(11) $x = \frac{2}{3}$	(11) $x = \frac{2}{3}$	
(12) $\frac{11}{12}$	(12) $\frac{3}{4}$	(12) $x = 4$	(12) $x = \frac{4}{5}$	(10) $x = 200$

176	177
<p>(1)</p> $\frac{2}{3} \times x = 40$ $x = 60$ <p style="text-align: right;"><u>60 pages</u></p> <p>(2)</p> <p>If the total distance is x metres,</p> $\frac{7}{10} \times x = 280$ $x = 400$ <p style="text-align: right;"><u>400 m</u></p>	<p>(1)</p> $1 - \frac{2}{5} = \frac{3}{5}$ $\frac{3}{5} \times x = 180$ $x = 300$ <p style="text-align: right;"><u>300 g</u></p>
176	177
<p>(3)</p> <p>① If the total number of pencils is x pencils,</p> $\frac{2}{5} \times x = 18$ $x = 45$ <p style="text-align: right;"><u>45 pencils</u></p> <p>② 45</p> $\text{45} - 18 = 27$ <p style="text-align: right;"><u>27 pencils</u></p>	<p>(2)</p> $1 - \frac{2}{9} = \frac{7}{9}$ $\frac{7}{9} \times x = 560$ $x = 720$ <p style="text-align: right;"><u>720 g</u></p> <p>(3)</p> $1 - \frac{2}{5} = \frac{3}{5}$ $\frac{3}{5} \times x = 24$ $x = 40$ <p style="text-align: right;"><u>40 m²</u></p>

F178-180 (5-7 min)

The intermediate steps may differ from what is indicated in the Answer Book. Mark as correct if the steps are correct.

178	179
<p>(1)</p> $1 - \frac{8}{15} = \frac{7}{15}$ $\frac{7}{15} \times x = 140$ $x = 300$ <p style="text-align: right;"><u>300 ml</u></p>	<p>(1)</p> $\textcircled{1} \frac{2}{3} \times \left(1 - \frac{3}{8}\right) = \frac{5}{12}$ $1 - \frac{3}{8} - \frac{5}{12} = \frac{5}{24}$ <p style="text-align: right;"><u>$\frac{5}{24}$</u></p> $\textcircled{2} \frac{5}{24} \times x = 100$ $x = \boxed{480}$ <p style="text-align: right;"><u>480 ml</u></p>
178	179
<p>(2)</p> $1 - \frac{3}{7} = \frac{4}{7}$ $\frac{4}{7} \times x = 280$ $x = 490$ <p style="text-align: right;"><u>490 g</u></p> <p>(3)</p> $1 - \frac{2}{5} = \frac{3}{5}$ $\frac{3}{5} \times x = 120$ $x = 200$ <p style="text-align: right;"><u>200 g</u></p>	<p>(2) Yesterday : $\frac{2}{5}$</p> <p>The remaining cheese from yesterday : $1 - \frac{2}{5}$</p> <p>Today : $\frac{2}{5} \times \left(1 - \frac{2}{5}\right) = \frac{6}{25}$</p> <p>The remaining cheese from today : $1 - \frac{2}{5} - \frac{6}{25} = \frac{9}{25}$</p> <p>If the total amount of cheese is x grams,</p> $\frac{9}{25} \times x = 900$ $x = 2500$ <p style="text-align: right;"><u>2500 g</u></p>

180

$$(1) \quad x = \frac{1}{6} \quad (4) \quad x = 1\frac{7}{8}$$

$$(2) \quad x = \frac{4}{5} \quad (5) \quad x = \frac{3}{10}$$

$$(3) \quad x = \frac{5}{12}$$

180

$$2. \quad (1)^* \quad \frac{5}{3} \times \frac{2}{11} + \frac{19}{12} \div \left(2\frac{1}{4} - \square\right) = 1\frac{1}{6}$$

$$\frac{10}{33} + \frac{19}{12} \div \left(2\frac{1}{4} - \square\right) = 1\frac{1}{6}$$

$$\frac{20}{66} + \frac{19}{12} \div \left(2\frac{1}{4} - \square\right) = 1\frac{1}{66}$$

$$\frac{19}{12} \div \left(2\frac{1}{4} - \square\right) = \frac{19}{22}$$

$$2\frac{1}{4} - \square = \frac{19}{12} \times \frac{22}{19}$$

$$2\frac{1}{4} - \square = 1\frac{5}{6}$$

$$\square = \frac{5}{12}$$

$$\underline{\frac{5}{12}}$$

$$(2)^* \quad \left(\frac{1999}{24} + \square\right) \times \frac{8}{5} - \frac{38}{11} \times \frac{11}{3} = 127$$

$$\left(\frac{1999}{24} + \square\right) \times \frac{8}{5} - 12\frac{2}{3} = 127$$

$$\left(\frac{1999}{24} + \square\right) \times \frac{8}{5} = 139\frac{2}{3}$$

$$\frac{1999}{24} + \square = \frac{419}{3} \times \frac{5}{8}$$

$$\frac{1999}{24} + \square = \frac{2095}{24}$$

$$\square = 4$$

$$\underline{4}$$

F181-190 (3-5 min)

[For F181b(15), '54' can also be expressed as '54.0']
The same may be applied to similar problems.

181	182	183	184	185
(1) 0.9	(1) 5.85	(1) 0.8	(1) 1.18	(1) 19
(2) 0.7	(2) 23.1	(2) 0.3	(2) 19.7	(2) 70.07
(3) 2.9	(3) 8.07	(3) 2.2	(3) 1.93	(3) 19.03
(4) 5.8	(4) 3.8	(4) 3.3	(4) 2.98	(4) 10
(5) 1.1	(5) 16.07	(5) 0.9	(5) 0.03	(5) 18.37
(6) 1.2	(6) 13.14	(6) 1.8	(6) 0.93	(6) 1.004
(7) 1.4	(7) 3.9	(7) 2.2	(7) 99.8	(7) 254.129
(8) 3.2	(8) 5.4	(8) 3.7	(8) 99.7	
(9) 5.1		(9) 3.5		
(10) 8.5		(10) 6.4		
181	182	183	184	185
(11) 5.72	(9) 16.86	(11) 2.21	(9) 12.92	(8) 7.2
(12) 4.06	(10) 27.28	(12) 3.24	(10) 11.74	(9) 16.04
(13) 72.4	(11) 7.641	(13) 47.3	(11) 3.22	(10) 1.967
(14) 15.1	(12) 17.864	(14) 78.1	(12) 37.17	(11) 19.85
(15) 54 [or 54.0]	(13) 15.797	(15) 2.56	(13) 1.356	(12) 28.234
(16) 81 [or 81.0]	(14) 28.1	(16) 1.92	(14) 1.137	(13) 0.9
(17) 6.07	(15) 40.129	(17) 11.3	(15) 2.58	(14) 499.1
(18) 22.5		(18) 9.8		

186	187	188	189	190
(1) 0.6	(1) 92.4	(1) 253.7	(1) 1.081	(1) 59.22
(2) 0.8	(2) 9.24	(2) 91.2	(2) 2.185	(2) 33.615
(3) 3.5				
(4) 7.2	(3) 0.924		(3) 0.888	(3) 17.612
(5) 4.8	(4) 382.2	(3) 25.37	(4) 0.1431	(4) 22.4
(6) 12.3	(5) 38.22	(4) 9.12	(5) 0.2028	(5) 2450
(7) 5.2				
(8) 7.5	(6) 3.822		(6) 0.2052	(6) 98.81
186	187	188	189	190
(9) 43.4	(7) 0.495	(5) 51.15	(7) 0.1024	(7) 1.257
(10) 41.4	(8) 0.108	(6) 428.8	(8) 0.2024	(8) 393.4
	(9) 1.585			(9) 0.684
(11) 37.5	(10) 1.46	(7) 243.6	(9) 0.1971	(10) 0.576
(12) 121.5	(11) 0.0495	(8) 27.83	(10) 0.0063	(11) 4.982
	(12) 0.0108			(12) 3.922
(13) 9.72	(13) 0.1585	(9) 179.92	(11) 416	
(14) 16.64	(14) 0.146	(10) 35.518	(12) 0.5	(13) 6.8425

F191-200 (3-5 min)

191	192	193	194	195
(1) 0.3	(1) 12.5	(1) 2.4	(1) 21.4	(1) 0.6
(2) 0.3	(2) 12.6	(2) 3.5	(2) 21.3	(2) 0.8
(3) 0.5				
(4) 0.9	(3) 3.5		(3) 215	(3) 0.25
(5) 1.2	(4) 1.25	(3) 0.86	(4) 115	(4) 0.75
(6) 2.4	(5) 1.625	(4) 0.85	(5) 25	(5) 0.125
(7) 1.8				
(8) 1.3	(6) 5.125		(6) 40.5	(6) 0.375
191	192	193	194	195
(9) 1.23	(7) 1.15	(5) 1.25	(7) 4.1	(7) 0.2
				(8) 0.3
(10) 1.81	(8) 4.075	(6) 2.12	(8) 2.3	(9) 0.08
(11) 11.4	(9) 9.36		(9) 31	(10) 0.16
(12) 0.92	(10) 1.375	(7) 1.225	(10) 32	(11) 1.4
				(12) 1.25
(13) 0.56	(11) 7.875	(8) 0.404	(11) 120	(13) 2.125
(14) 0.09	(12) 12.225		(12) 1400	(14) 3.3

196	197	198	199	200
(1) 0.43	(1) 4.86	(1) 78	(1) 11.6	(1) 16.54
(2) 4.3	(2) 0.486	(2) 780	(2) 13.65	(2) 6.79
(3) 43	(3) 0.0486	(3) 0.78	(3) 6.02	(3) 28.775
(4) 430	(4) 0.00486	(4) 0.078	(4) 1.92	(4) 5.766
(5) 1.23	(5) 0.486	(5) 235	(5) 5.2	(5) 46
(6) 12.3	(6) 0.0486	(6) 2350	(6) 4	(6) 0.254
(7) 123	(7) 0.00486	(7) 0.235	(7) 0.136	(7) 0.2826
(8) 1230	(8) 0.000486	(8) 0.0235	(8) 0.462	(8) 2.634
(9) 0.43	(9) 4.86	(9) 78	(9) 11.6	(9) 16.54
(10) 4.3	(10) 0.486	(10) 780	(10) 13.65	(10) 6.79
(11) 43	(11) 0.0486	(11) 0.78	(11) 6.02	(11) 28.775
(12) 430	(12) 0.00486	(12) 0.078	(12) 1.92	(12) 5.766
(13) 1.23	(13) 0.486	(13) 235	(13) 5.2	(13) 46
(14) 12.3	(14) 0.0486	(14) 2350	(14) 4	(14) 0.254
(15) 123	(15) 0.00486	(15) 0.235	(15) 0.136	(15) 0.2826
(16) 1230	(16) 0.000486	(16) 0.0235	(16) 0.462	(16) 2.634
(17) 0.43	(17) 4.86	(17) 78	(17) 11.6	(17) 16.54
(18) 4.3	(18) 0.486	(18) 780	(18) 13.65	(18) 6.79
(19) 43	(19) 0.0486	(19) 0.78	(19) 6.02	(19) 28.775
(20) 430	(20) 0.00486	(20) 0.078	(20) 1.92	(20) 5.766
(21) 1.23	(21) 0.486	(21) 235	(21) 5.2	(21) 46
(22) 12.3	(22) 0.0486	(22) 2350	(22) 4	(22) 0.254
(23) 123	(23) 0.00486	(23) 0.235	(23) 0.136	(23) 0.2826
(24) 1230	(24) 0.000486	(24) 0.0235	(24) 0.462	(24) 2.634
(25) 0.43	(25) 4.86	(25) 78	(25) 11.6	(25) 16.54
(26) 4.3	(26) 0.486	(26) 780	(26) 13.65	(26) 6.79
(27) 43	(27) 0.0486	(27) 0.78	(27) 6.02	(27) 28.775
(28) 430	(28) 0.00486	(28) 0.078	(28) 1.92	(28) 5.766
(29) 1.23	(29) 0.486	(29) 235	(29) 5.2	(29) 46
(30) 12.3	(30) 0.0486	(30) 2350	(30) 4	(30) 0.254
(31) 123	(31) 0.00486	(31) 0.235	(31) 0.136	(31) 0.2826
(32) 1230	(32) 0.000486	(32) 0.0235	(32) 0.462	(32) 2.634
(33) 0.43	(33) 4.86	(33) 78	(33) 11.6	(33) 16.54
(34) 4.3	(34) 0.486	(34) 780	(34) 13.65	(34) 6.79
(35) 43	(35) 0.0486	(35) 0.78	(35) 6.02	(35) 28.775
(36) 430	(36) 0.00486	(36) 0.078	(36) 1.92	(36) 5.766
(37) 1.23	(37) 0.486	(37) 235	(37) 5.2	(37) 46
(38) 12.3	(38) 0.0486	(38) 2350	(38) 4	(38) 0.254
(39) 123	(39) 0.00486	(39) 0.235	(39) 0.136	(39) 0.2826
(40) 1230	(40) 0.000486	(40) 0.0235	(40) 0.462	(40) 2.634
(41) 0.43	(41) 4.86	(41) 78	(41) 11.6	(41) 16.54
(42) 4.3	(42) 0.486	(42) 780	(42) 13.65	(42) 6.79
(43) 43	(43) 0.0486	(43) 0.78	(43) 6.02	(43) 28.775
(44) 430	(44) 0.00486	(44) 0.078	(44) 1.92	(44) 5.766
(45) 1.23	(45) 0.486	(45) 235	(45) 5.2	(45) 46
(46) 12.3	(46) 0.0486	(46) 2350	(46) 4	(46) 0.254
(47) 123	(47) 0.00486	(47) 0.235	(47) 0.136	(47) 0.2826
(48) 1230	(48) 0.000486	(48) 0.0235	(48) 0.462	(48) 2.634
(49) 0.43	(49) 4.86	(49) 78	(49) 11.6	(49) 16.54
(50) 4.3	(50) 0.486	(50) 780	(50) 13.65	(50) 6.79
(51) 43	(51) 0.0486	(51) 0.78	(51) 6.02	(51) 28.775
(52) 430	(52) 0.00486	(52) 0.078	(52) 1.92	(52) 5.766
(53) 1.23	(53) 0.486	(53) 235	(53) 5.2	(53) 46
(54) 12.3	(54) 0.0486	(54) 2350	(54) 4	(54) 0.254
(55) 123	(55) 0.00486	(55) 0.235	(55) 0.136	(55) 0.2826
(56) 1230	(56) 0.000486	(56) 0.0235	(56) 0.462	(56) 2.634
(57) 0.43	(57) 4.86	(57) 78	(57) 11.6	(57) 16.54
(58) 4.3	(58) 0.486	(58) 780	(58) 13.65	(58) 6.79
(59) 43	(59) 0.0486	(59) 0.78	(59) 6.02	(59) 28.775
(60) 430	(60) 0.00486	(60) 0.078	(60) 1.92	(60) 5.766
(61) 1.23	(61) 0.486	(61) 235	(61) 5.2	(61) 46
(62) 12.3	(62) 0.0486	(62) 2350	(62) 4	(62) 0.254
(63) 123	(63) 0.00486	(63) 0.235	(63) 0.136	(63) 0.2826
(64) 1230	(64) 0.000486	(64) 0.0235	(64) 0.462	(64) 2.634
(65) 0.43	(65) 4.86	(65) 78	(65) 11.6	(65) 16.54
(66) 4.3	(66) 0.486	(66) 780	(66) 13.65	(66) 6.79
(67) 43	(67) 0.0486	(67) 0.78	(67) 6.02	(67) 28.775
(68) 430	(68) 0.00486	(68) 0.078	(68) 1.92	(68) 5.766
(69) 1.23	(69) 0.486	(69) 235	(69) 5.2	(69) 46
(70) 12.3	(70) 0.0486	(70) 2350	(70) 4	(70) 0.254
(71) 123	(71) 0.00486	(71) 0.235	(71) 0.136	(71) 0.2826
(72) 1230	(72) 0.000486	(72) 0.0235	(72) 0.462	(72) 2.634
(73) 0.43	(73) 4.86	(73) 78	(73) 11.6	(73) 16.54
(74) 4.3	(74) 0.486	(74) 780	(74) 13.65	(74) 6.79
(75) 43	(75) 0.0486	(75) 0.78	(75) 6.02	(75) 28.775
(76) 430	(76) 0.00486	(76) 0.078	(76) 1.92	(76) 5.766
(77) 1.23	(77) 0.486	(77) 235	(77) 5.2	(77) 46
(78) 12.3	(78) 0.0486	(78) 2350	(78) 4	(78) 0.254
(79) 123	(79) 0.00486	(79) 0.235	(79) 0.136	(79) 0.2826
(80) 1230	(80) 0.000486	(80) 0.0235	(80) 0.462	(80) 2.634
(81) 0.43	(81) 4.86	(81) 78	(81) 11.6	(81) 16.54
(82) 4.3	(82) 0.486	(82) 780	(82) 13.65	(82) 6.79
(83) 43	(83) 0.0486	(83) 0.78	(83) 6.02	(83) 28.775
(84) 430	(84) 0.00486	(84) 0.078	(84) 1.92	(84) 5.766
(85) 1.23	(85) 0.486	(85) 235	(85) 5.2	(85) 46
(86) 12.3	(86) 0.0486	(86) 2350	(86) 4	(86) 0.254
(87) 123	(87) 0.00486	(87) 0.235	(87) 0.136	(87) 0.2826
(88) 1230	(88) 0.000486	(88) 0.0235	(88) 0.462	(88) 2.634
(89) 0.43	(89) 4.86	(89) 78	(89) 11.6	(89) 16.54
(90) 4.3	(90) 0.486	(90) 780	(90) 13.65	(90) 6.79
(91) 43	(91) 0.0486	(91) 0.78	(91) 6.02	(91) 28.775
(92) 430	(92) 0.00486	(92) 0.078	(92) 1.92	(92) 5.766
(93) 1.23	(93) 0.486	(93) 235	(93) 5.2	(93) 46
(94) 12.3	(94) 0.0486	(94) 2350	(94) 4	(94) 0.254
(95) 123	(95) 0.00486	(95) 0.235	(95) 0.136	(95) 0.2826
(96) 1230	(96) 0.000486	(96) 0.0235	(96) 0.462	(96) 2.634
(97) 0.43	(97) 4.86	(97) 78	(97) 11.6	(97) 16.54
(98) 4.3	(98) 0.486	(98) 780	(98) 13.65	(98) 6.79
(99) 43	(99) 0.0486	(99) 0.78	(99) 6.02	(99) 28.775
(100) 430	(100) 0.00486	(100) 0.078	(100) 1.92	(100) 5.766
(101) 1.23	(101) 0.486	(101) 235	(101) 5.2	(101) 46
(102) 12.3	(102) 0.0486	(102) 2350	(102) 4	(102) 0.254
(103) 123	(103) 0.00486	(103) 0.235	(103) 0.136	(103) 0.2826
(104) 1230	(104) 0.000486	(104) 0.0235	(104) 0.462	(104) 2.634
(105) 0.43	(105) 4.86	(105) 78	(105) 11.6	(105) 16.54
(106) 4.3	(106) 0.486	(106) 780	(106) 13.65	(106) 6.79
(107) 43	(107) 0.0486	(107) 0.78	(107) 6.02	(107) 28.775
(108) 430	(108) 0.00486	(108) 0.078	(108) 1.92	(108) 5.766
(109) 1.23	(109) 0.486	(109) 235	(109) 5.2	(109) 46
(110) 12.3	(110) 0.0486	(110) 2350	(110) 4	(110) 0.254
(111) 123	(111) 0.00486	(111) 0.235	(111) 0.136	(111) 0.2826
(112) 1230	(112) 0.000486	(112) 0.0235	(112) 0.462	(112) 2.634
(113) 0.43	(113) 4.86	(113) 78	(113) 11.6	(113) 16.54
(114) 4.3	(114) 0.486	(114) 780	(114) 13.65	(114) 6.79
(115) 43	(115) 0.0486	(115) 0.78	(115) 6.02	(115) 28.775
(116) 430	(116) 0.00486	(116) 0.078	(116) 1.92	(116) 5.766
(117) 1.23	(117) 0.486	(117) 235	(117) 5.2	(117) 46
(118) 12.3	(118) 0.0486	(118) 2350	(118) 4	(118) 0.254
(119) 123	(119) 0.00486	(119) 0.235	(119) 0.136	(119) 0.2826
(120) 1230	(120) 0.000486	(120) 0.0235	(120) 0.462	(120) 2.634
(121) 0.43	(121) 4.86	(121) 78	(121) 11.6	(121) 16.54
(122) 4.3	(122) 0.486	(122) 780	(122) 13.65	(122) 6.79
(123) 43	(123) 0.0486	(123) 0.78	(123) 6.02	(123) 28.775
(124) 430	(124) 0.00486	(124) 0.078	(124) 1.92	(124) 5.766
(125) 1.23	(125) 0.486	(125) 235	(125) 5.2	(125) 46
(126) 12.3	(126) 0.0486	(126) 2350	(126) 4	(126) 0.254
(127) 123	(127) 0.00486	(127) 0.235	(127) 0.136	(127) 0.2826
(128) 1230	(128) 0.000486	(128) 0.0235	(128) 0.462	(128) 2.634
(129) 0.43	(129) 4.86	(129) 78	(129) 11.6	(129) 16.54
(130) 4.3	(130) 0.486	(130) 780	(130) 13.65	(130) 6.79
(131) 43	(131) 0.0486	(131) 0.78	(131) 6.02	(131) 28.775
(132) 430	(132) 0.00486	(132) 0.078	(132) 1.92	(132) 5.766
(133) 1.23	(133) 0.486	(133) 235	(133) 5.2	(133) 46
(134) 12.3	(134) 0.0486	(134) 2350	(134) 4	(134) 0.254
(135) 123	(135) 0.00486	(135) 0.235	(135) 0.136	(135) 0.2826
(136) 1230	(136) 0.000486	(136) 0.0235	(136) 0.462	(136) 2.634
(137) 0.43	(137) 4.86	(137) 78	(137) 11.6	(137) 16.54
(138) 4.3	(138) 0.486	(138) 780	(138) 13.65	(138) 6.79
(139) 43	(139) 0.0486	(139) 0.78	(139) 6.02	(139) 28.775
(140) 430	(140) 0.00486	(140) 0.078	(140) 1.92	(140) 5.766
(141) 1.23	(141) 0.486	(141) 235	(141) 5.2	(141) 46
(142) 12.3	(142) 0.0486	(142) 2350	(142) 4	(142) 0.254
(143) 123	(143) 0.00486	(143) 0.235	(143) 0.136	(143) 0.2826
(144) 1230	(144) 0.000486	(144) 0.0235	(144) 0.462	(144) 2.634
(145) 0.43	(145) 4.86	(145) 78	(145) 11.6	(145) 16.54
(146) 4.3	(146) 0.486	(146) 780	(146) 13.65	(146) 6.79
(147) 43	(147) 0.0486	(147) 0.78	(147) 6.02	(147) 28.775
(148) 430	(148) 0.00486	(148) 0.078	(148) 1.92	(148) 5.766
(149) 1.23	(149) 0.486	(149) 235	(149) 5.2	(149) 46
(150) 12.3	(150) 0.0486	(150) 2350	(150) 4	(150) 0.254
(151) 123	(151) 0.00486	(151) 0.235	(151) 0.136	(151) 0.2826
(152) 1230	(152) 0.000486	(152) 0.0235	(152) 0.462	(152) 2.634
(153) 0.43	(153) 4.86	(153) 78	(153) 11.6	(153) 16.54
(154) 4.3	(154) 0.486	(154) 780	(154) 13.65	(154) 6.79
(155) 43	(155) 0.0486	(155) 0.78	(155) 6.02	(155) 28.775
(156) 430	(156) 0.00486	(156) 0.078	(156) 1.92	(156) 5.766
(157) 1.23	(157) 0.486	(157) 235	(157) 5.2	(157) 46
(158) 12.3	(158) 0.0486	(158) 2350	(158) 4	(158) 0.254
(159) 123	(159) 0.00486	(159) 0.235	(159) 0.136	(159) 0.2826
(160) 1230	(160) 0.000486	(160) 0.0235	(160) 0.462	(160) 2.634
(161) 0.43	(161) 4.86	(161) 78	(161) 11.6	(161) 16.54
(162) 4.3	(162) 0.486	(162) 780	(162) 13.65	(162) 6.79
(163) 43	(163) 0.0486	(163) 0.78	(163) 6.02	(163) 28.775
(164) 430	(164) 0.00486	(164) 0.078	(164) 1.92	(164) 5.766
(165) 1.23	(165)			